

**Notice of Allowability**

Application No.

09/927,547

Examiner

Tarifur R Chowdhury

Applicant(s)

KUBO ET AL.

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 05/11/04.
2. ☒ The allowed claim(s) is/are 29,31,38-53 and 57.
3. ☒ The drawings filed on 03 August 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☒ Certified copies of the priority documents have been received in Application No. 09/220,792.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                     | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|  | 9. <input type="checkbox"/> Other _____   |

**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application is in condition for allowance except for the presence of non-elected claims 30, 32-36, 54-56 and 58-60 without traverse filed on 05/11/04.

Accordingly, claims 30, 32-36, 54-56 and 58-60 have been canceled.

***Allowable Subject Matter***

2. Claims 29, 31, 38-53 and 57 are allowed.
3. The following is an examiner's statement of reasons for allowance:
4. As to claim 29, the prior arts of record do not anticipate or render obvious to one skilled in the art a liquid crystal display device comprising various elements as claimed, more specifically each of the pixel areas having a reflection area defined by reflective electrode region and a transmission area defined by transmissive electrode region wherein a thickness (d1) of the liquid crystal layer in the transmissive electrode region a thickness (d2) of the liquid crystal layer in the reflective electrode region are defined by a relationship  $d1 > d2$ , and wherein thickness d1 is substantially larger than thickness d2 so that electrooptical characteristics of the reflection area and the transmission area are approximately matched.
5. As to claims 31 and 47, the prior arts of record do not anticipate or render obvious to one skilled in the art a liquid crystal display device comprising various elements as claimed, more specifically each of the pixel areas having a reflection area defined by reflective electrode region and a transmission area defined by transmissive electrode region wherein a thickness (d1) of the liquid crystal layer in the transmissive electrode region a thickness (d2) of the liquid crystal layer in the reflective electrode region are defined by a relationship  $d1 > 2 \cdot d2$ .
6. As to claim 38, the prior arts of record do not anticipate or render obvious to one skilled in the art a liquid crystal display device comprising various elements as claimed, more specifically each of the pixel areas having a reflection area defined by reflective

Art Unit: 2871

electrode region and a transmission area defined by transmissive electrode region wherein a thickness (d1) of the liquid crystal layer in the transmissive electrode region a thickness (d2) of the liquid crystal layer in the reflective electrode region are defined by a relationship  $d1 > d2$  and wherein thickness d1 is substantially larger than thickness d2.

7. As to claim 53, the prior arts of record do not anticipate or render obvious to one skilled in the art a liquid crystal display device comprising various elements as claimed, more specifically each of the pixel areas having a reflection area defined by reflective electrode region and a transmission area defined by transmissive electrode region wherein a thickness (d1) of the liquid crystal layer in the transmissive electrode region a thickness (d2) of the liquid crystal layer in the reflective electrode region are defined by a relationship  $d1 > d2$  and wherein the reflective electrode at least partially overlaps the transmissive electrode.

8. As to claim 57, the prior arts of record do not anticipate or render obvious to one skilled in the art a liquid crystal display device comprising various elements as claimed, more specifically each of the pixel areas having a reflection area defined by reflective electrode region and a transmission area defined by transmission electrode region and wherein the reflection electrode region is higher than the transmission electrode region, forming a step on a surface of the first substrate, and thus a thickness of the liquid crystal layer in the reflection region is smaller than a thickness of the liquid crystal layer in the transmission region.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

Art Unit: 2871

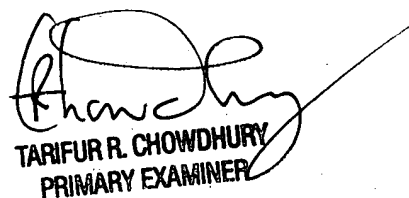
accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R Chowdhury whose telephone number is (571) 272-2287. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TRC  
May 19, 2004

  
TARIFUR R. CHOWDHURY  
PRIMARY EXAMINER